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QUESTION OF ANTARCTICA

State of the environment in Antarctica and its impact
on the global system

Report of the Secretary-General

CONTENTS

	<u>Paragraphs</u>	<u>Page</u>
I. INTRODUCTION	1 - 5	3
II. ANTARCTICA'S ROLE IN THE GLOBAL SYSTEM	6 - 9	4
III. ATMOSPHERE	10 - 16	5
A. General considerations	10	5
B. Ozone depletion	11 - 14	5
C. CO ₂ balance	15 - 16	6
IV. TERRESTRIAL ENVIRONMENT	17 - 23	7
A. General observations	17 - 19	7
B. Impact of scientific research activities	20 - 22	7
C. Tourism	23	8
V. MARINE ENVIRONMENT	24 - 41	8
A. General considerations	24 - 25	8
B. Presence of harmful substances in the Southern Ocean	26 - 28	9

CONTENTS (continued)

	<u>Paragraphs</u>	<u>Page</u>
1. Hydrocarbons	26 - 28	9
2. Chlorinated hydrocarbons	29 - 30	9
3. Radionuclides	31	10
4. Anthropogenic debris	32 - 33	10
C. Marine living resources and associated biota	34 - 41	10
1. Whales	34	10
2. Krill	35 - 36	11
3. Fish	37 - 38	11
4. Seals	39 - 40	11
5. Oceanic birds	41	12
VI. SCIENTIFIC RESEARCH IN ANTARCTICA AND PROTECTION OF THE ANTARCTIC ENVIRONMENT	42 - 44	12
VII. CONCLUDING REMARKS	45	13
<u>Annex.</u> Replies from Governments		15

I. INTRODUCTION

1. In its resolution 45/78 A of 12 December 1990 the General Assembly requested, *inter alia*, the Secretary-General to submit a report, using available data and resources, on the state of the environment in Antarctica and its impact on the global system to the General Assembly at its forty-sixth session.

2. In accordance with resolution 45/78 A, the Secretary-General, on 27 February 1991, addressed a note verbale to Member States and requested them to submit, not later than 30 May 1991, any pertinent information they were preparing to make available in pursuance of the relevant provisions of the resolution.

3. Letters were also sent to the relevant specialized agencies, programmes, organs, organizations and bodies of the United Nations system and to relevant intergovernmental and non-governmental bodies inviting them to submit not later than 15 June 1991 data, concerning but not necessarily limited to (a) the role of Antarctica as regards atmospheric sciences; (b) the status of global weather and climate processes; (c) glaciology, including data on mineral and hydrocarbon effects; (d) biological and physical oceanography; and (e) information on the results of scientific studies which relate to the Antarctic environment and its ecosystems.

4. As at 31 July 1991, replies from three Member States, including one, acting on behalf of the States Parties to the Antarctic Treaty, were received with reference to resolution 45/78 A (see annex). These replies have been taken into account in the preparation of this report. Relevant information, including scientific data, opinions and conclusions, has been provided for this report by several specialized agencies and bodies of the United Nations system and by intergovernmental and non-governmental organizations with special expertise in matters relevant to the state of Antarctic environment, such as the Food and Agriculture Organization of the United Nations (FAO), the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO), the United Nations Environment Programme (UNEP), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Meteorological Organization (WMO), the Committee on Conservation of Antarctic Marine Living Resources (CCAMLR), the International Whaling Commission (IWC), the Scientific Committee on Antarctic Research (SCAR), Greenpeace International and the Fridtjof Nansen Institute, Norway. Relevant information was also drawn from communications received pursuant to General Assembly resolutions 38/77 of 15 December 1983 and 40/156 A of 16 December 1985.

5. Owing to the provisions of document ST/AI/189/Add.20/Rev.1 of 20 February 1982 which relate to the control and limitation of documentation, every effort has been made to keep the length of this report within prescribed limits. At the same time, it should be mentioned here that there are considerable amounts of relevant information relating to the state of the environment in Antarctica and its impact on the global system. As a

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consequence, sacrifices in content, depth, detail and style were clearly unavoidable. It should also be noted that certain aspects of the same issues addressed in this report were also dealt with at length in the Secretary-General's reports on the Question of Antarctica submitted to the General Assembly at its thirty-ninth session (A/39/583) and forty-first session (A/41/722). These documents may be used as reference points.

II. ANTARCTICA'S ROLE IN THE GLOBAL SYSTEM

6. To the extent at present understood, Antarctica has an important role in the global climate system by acting, among other things, as one of Earth's "refrigerators", affecting the global atmosphere and ocean circulation. The formation of an Antarctic ice-sheet and the associated cooling process has profoundly affected global climate patterns, and the development of marine and terrestrial biota. The ice-sheet has proved to be a veritable repository of detailed records of past global climate and atmospheric chemistry, covering hundreds of millennia. At the same time, it should be noted that this ice-sheet also contains enough water to raise world-wide sea levels by up to 60 metres, were it all to melt. 1/

7. Reportedly, polar seas also have a particularly important role in the exchange of carbondioxide (CO₂) between the ocean and the atmosphere. Reportedly, these processes are affected by sea-ice formations, thermohaline convection and biological productivity. 2/

8. The recently discovered sharp seasonal decrease in stratospheric ozone (the so-called "ozone hole") over Antarctica also gives rise to the working hypothesis that there is a correlation between the release of industrially produced chlorofluorocarbons (CFCs) and ozone depletion. At present, various scientific studies, including some conducted from orbiting satellites, are being conducted to examine the effects of global pollution on the Earth's ozone layers.

9. These studies suggest a multilinear interrelationship between the Antarctic environment and the global system. Antarctica is not only an important venue for determining global changes but is also clearly influenced by them. Thus, the Antarctic environment offers unique opportunities for detecting changes in the Earth's atmospheric systems, and for assessing the impact of pollutants on global ecosystems. For several reasons, Antarctica offers favourable conditions for many kinds of scientific observations. These include a marked remoteness from anthropogenic emissions in the atmosphere and within the oceans, and an enhanced potential for forecasting climate changes at high latitudes. 3/

III. ATMOSPHERE

A. General considerations

10. As noted earlier, atmospheric pollution in the Antarctic region is relatively limited by a remoteness from the main sources of industrial pollutants, as well as by some air-circulation patterns. 4/ Most scientists tend to agree that air pollution resulting from human activities in the Antarctic is, as of now, rather limited and localized in its effects. Observations over recent years reflect, however, that the Antarctic atmosphere has been disturbed by the effects of pollutants originating at lower latitudes, and particularly by industrial pollutants from the Northern Hemisphere. A marked increase in substances generally linked to large-scale human activities has been detected in the atmosphere over the continent. These substances include CO₂ (whose concentrations seem to follow the trend observed at a global level), man-made halocarbons (whose effect is believed to contribute to global warming and the depletion of the ozone layer), aerosols, sulphurdioxide and radioactive substances. 5/

B. Ozone depletion

11. While comprehensive studies of ozone depletion, as mentioned above, are still largely incomplete; it is clear that the sharp decrease of stratospheric ozone observed over Antarctica in the austral spring during the past decade seems to be dramatic evidence of the anthropogenic influence on the Antarctic environment. Ozone decreases of up to 50 per cent of the 1956-1978 average for October, and up to 95 per cent locally between 15 and 20 km altitudes, have been observed in 1987, 1989 and 1990. The Antarctic ozone depletion in the spring of October 1988 was not as great as in 1985 or 1987, but it was comparable to that observed in 1983 and 1986. In 1989, the decline was the second most significant since that of 1987. In 1990, it was considerable and extended into early December. Such fluctuations are not unexpected since they appear to depend on the prevailing meteorological conditions, which vary from year to year. Thus, it is believed that the Antarctic ozone decline could be smaller in years in which there may be an initially significant increase in temperature within the Antarctic stratosphere. 6/

12. A catalytic cycle is implicated in the destruction of the Earth's ozone layer. This process depends on the release of chlorine, which in turn is stimulated by solar ultraviolet radiation destroying CFC molecules. Atmospheric conditions in Antarctica, such as its extremely low temperatures, high ultraviolet radiation, and the relative isolation of the Antarctic stratosphere from mid-latitude environment (caused by the Antarctic vortex) appear to be particularly conducive in that process. CFCs, it should be noted, do not originate from routine Antarctic activities but are still widely used in refrigeration, the manufacture of foam insulation and the rendering of industrial solvents. 7/

13. Scientific models, based on current understandings of the role of industrial CFCs in the ozone depletion process, indicate that the extensive ozone decline may not disappear until the atmospheric abundance of chlorine is reduced to the mid-1970s level, or below 2 parts per billion by volume. Reportedly, this would require a complete phase out of the present emissions of the fully halogenated chlorofluorocarbons. However, even if complete cessation of their use is achieved, the atmospheric abundance of chlorine will not decrease to 2 parts per billion by volume before the end of the next century. 8/

14. In summary, global effects of ozone depletion are not yet fully understood, and there are several ongoing studies to this end. Since ozone provides the Earth's biological systems with a shield from hazardous solar radiation (especially ultraviolet radiation) the depletion of the ozone layer may have adverse effects on the Antarctic environment, particularly on marine life. It has been suggested, for instance, that increased ultraviolet radiation may affect Antarctic phytoplankton which is fundamental to the Antarctic food web. If that is to occur, one may envision significant repercussions throughout the aquatic environment, affecting marine flora and fauna.

C. CO₂ balance

15. Although the processes related to ocean-atmospheric CO₂ coupling (especially in the Antarctic region) are also not yet completely understood, the increase of CO₂ and methane levels in Earth's atmosphere none the less give cause for continued concern, because of their predominant contribution to the so-called "greenhouse effect", which portends a significant rise in global mean temperatures over the next half century. Studies of Antarctic ice-cores have revealed an increased CO₂ level in the atmosphere over the last century from a level of about 260 parts per million by volume (p.p.m.v.) before major anthropogenic influences ("pre-industrial", before 1850) to the present 345 p.p.m.v. This change may not be related only to the burning of fossil fuels. One calculation has indicated a "pre-industrial" level of 295 p.p.m.v. which could be the result of natural, but so far poorly understood, changes. 9/

16. While the greenhouse effect has global implications, some mathematical models suggest that the warming might be disproportionately large at high latitudes. No scenario envisages a total meltdown of the Antarctic ice-sheet which would have the devastating effect of raising sea levels around the world by up to 60 metres. However, it has been suggested that even the thawing of lower levels of the ice-cap could have a significant effect on world-wide sealevels. 10/

IV. TERRESTRIAL ENVIRONMENT

A. General observations

17. The Antarctic terrestrial environment appears to be particularly vulnerable to damages caused by human activities. Antarctic flora and terrestrial biota are, for the most part, concentrated in a few ice-free, mostly coastal areas. These are also the areas most exposed and vulnerable to human activities. Owing to the harsh Antarctic living conditions, terrestrial biological processes operate very slowly, intermittently, and on a small scale. This renders Antarctic ecosystems extremely fragile, easily disrupted, and markedly slow in the growing process.

18. At the same time, some scientists have suggested that the environmental impact caused by research activities in the Antarctic is often overestimated. They argue, for instance, that the easily destroyed land vegetation is primarily composed of rapidly propagating plants which more easily renew the plant cover and that any destruction is confined to the immediate vicinity of the impact. Even at the site of a scientific station (they claim), where the impact may be considerable, it is extremely localized with a restricted "footprint" probably much less than 1 km² on average. 11/

19. Within the Antarctic there is also a natural impact on global terrestrial ecosystems. For example, the increasing populations of Antarctic fur seals are believed to destroy natural vegetation in areas such as Bird Island, South Georgia, Signy Island and even Lynch Island in the South Orkney group, which is a Specially Protected Area, aimed at preserving the grass, Deschampsia. 12/

B. Impact of scientific research activities

20. The scientific and associated support activities are the main causes of direct anthropogenic environmental impact in Antarctica. Such impact of various dimensions may be caused either: (a) deliberately (construction activities, research-based collection of specimens; etc.); (b) incidentally (e.g., food wastes at a station may cause an increase in the population of scavenging birds); and/or (c) accidentally (e.g., fuel-tank ruptures).

21. Accordingly, a description of such potential impacts on Antarctic scientific activities may include:

(a) Habitat destruction or modification due to construction and other activities;

(b) Destruction, removal and modification of biota, fossils, artefacts, etc.;

(c) Modification of vital rates of biota, disturbance to production and growth;

(d) Modification of distribution of biota;

/...

(e) Introduction of alien biota;

(f) Pollution by biocides, nutrients, radionuclides, inert materials, electromagnetic radiation, noise;

(g) Aesthetic intrusion;

(h) Catastrophic pollution (accidents). 13/

22. Actual and potential accidents, particularly fuel spillage, in the Antarctic seem to elicit special concerns since they create serious risks for the environment and the global food chain. In 1989, for instance, an accidental spill of 50,000 gallons of fuel was reported at an Antarctic air base. None the less, the impact of routine scientific activities and even that of catastrophic pollution has been, up till now, relatively limited and localized.

C. Tourism

23. The types of negative environmental impact resulting from tourism are essentially correlated with human activities in Antarctica. Thus far, tourism has had a minimal adverse impact on the Antarctic environment since no significant tourist facilities have been constructed. Apart from the obvious problems that tourism may create for scientific programmes, it may also indirectly affect Antarctic ecosystems. For example, at the Cape Royds Adelie penguin rookery, a study revealed a 50 per cent reduction in the birds' breeding population over a six-year period. This was attributed to stress from repeated visits by tourists and personnel of a nearby scientific station. 14/

V. MARINE ENVIRONMENT

A. General considerations

24. Although the Southern Ocean has a considerable interchange with three other major oceans, there is a marked physical delineation between them (the so-called Antarctic Convergence), which limits the spreading of pollutants via surface water from lower latitudes. The marine environment there is considered not only far richer, but also more stable than the terrestrial environment. Because of its vast size and dynamic activity the Southern Ocean is believed to have a considerable buffering capacity. However, shoreline areas, especially sheltered bays, are more liable to changes caused by intrusion of components that are not normally present in the Antarctic environment. 15/

25. Although the Southern Ocean ecosystem is regarded by scientists as "robust", a major pollution incident (such as an oil spill) might have considerable consequences for the global environment.

B. Presence of harmful substances in the Southern Ocean

1. Hydrocarbons

26. Studies of hydrocarbons (and other contaminants) in the Southern Ocean have progressed as methodology has developed. In most cases, detected levels have been low, thus requiring more refined methods to be used and more studies to be undertaken. Sampling research resulting in data concerning hydrocarbon concentrations and distributions have for the most part been directed to specific activities rather than to generalized pollution monitoring. Thus, the emerging profile of pollutants refers primarily to coastal areas in the Southern Ocean. 16/

27. As with studies of hydrocarbons in other marine ecosystems, it is sometimes difficult to determine what is "natural" (i.e., biogenic or autochthonous) and what represents environmental contamination. Scientists believe that biogenic input is likely to account for all but a very small fraction of the hydrocarbons present in the ocean and its biota. 17/

28. Increasing levels of human activities within the Southern Ocean and on land may also contribute to hydrocarbon contamination. This may be associated with tourism and the functioning of permanent and temporary research stations and camps, and with the associated support activities. At present, the disposal of waste and accidental contamination associated with Antarctic research activity is the subject of a study by the Scientific Committee on Antarctic Research (SCAR). The group has detailed the waste products resulting from research activities and has suggested protocols for minimizing the ill effects of such waste. However, accidental spillage of fuel and lubricants remains a risk. Clearly, this is potentially hazardous to vulnerable species of the Antarctic marine biota, such as krill. It should be noted, however, that as of now shipping and other sources of anthropogenic hydrocarbon contamination within the Southern Ocean are widely scattered. Scientists believe that local pollution in this region may be naturally dispersed under most normal conditions. 18/

2. Chlorinated hydrocarbons

29. Early reports on the occurrence of DDT compounds in Antarctic biota furnished evidence that Antarctica was not spared from the world-wide dispersion of these pollutants. Since then, continuing research in Antarctica has supplied data confirming these early findings and has generated extensive data on a number of compounds other than DDT. Snow, ice and more recently water and air have been analysed for presence of chlorinated hydrocarbons. The available data base, however, still appears to be rather incomplete. 19/

30. According to available information, the concentration of pesticides and other chlorinated hydrocarbons in the Southern Ocean area is several orders of magnitude lower than that in the Northern Hemisphere. It is believed that research stations are likely to be responsible for some of the local

contamination. The low level of these compounds, which have been observed in Antarctica, may derive from aerial transport and ocean currents. 20/

3. Radionuclides

31. Observations on radionuclides show unusually high levels of polonium 210 and lead-210 activity ratios in Antarctic marine biota and sea water. There are still no generally accepted explanations for these phenomena. 21/

4. Anthropogenic debris

32. Anthropogenic debris, especially non-degradable material, is associated with human presence in Antarctica, and primarily with activities related to the operation of scientific stations. In some areas, additional contamination may be attributed to activities of fishing fleets.

33. Although the volume of garbage discharged into the Southern Ocean is reportedly insignificant, there is at present no method of making comprehensive measurements. Moreover, substantial risks remain of accidents resulting in such discharges. This is a cause of deep ongoing concern. In a recent accident, an estimated 70,000 gallons of diesel oil leaked into the sea, after the shipwreck involving the ocean-going freighter, Bahia Paraiso.

C. Marine living resources and associated biota 22/

1. Whales

34. While there are no reports of any whale species having become extinct, there are no clear signs of stock recovery despite various conservation measures. According to some estimates in 1989:

(a) Only a few hundred remain of an estimated population of about a quarter of a million blue whales which fed in the Antarctic waters in the summer;

(b) Of an original population of more than half a million fin whales, surviving numbers are probably in the thousands. Sei whale populations have probably been reduced to a similar extent;

(c) Humpback and right whales originally numbered around 100,000. Each has current populations in the low thousands;

(d) The minke whale is presumed not to be substantially depleted.

2. Krill

35. With regard to krill fishing there is general agreement that at the present level of catch per year - less than 400,000 tons - there is no reason for alarm about existing stocks. Further, the Marine Mammal Commission has indicated that, although there is increased fishing, it is unlikely that krill catches have had, or are having, any adverse effects on krill stocks or krill predators, except possibly in certain areas. However, concern that the fishing of krill may have consequential effects on krill-dependent predators is regularly expressed.

36. The main problem relating to krill is that very little is known about stock dynamics and seasonal breeding. Also, difficulties have been met in finding reliable methods for estimating stock sizes and distribution. Thus, it is warned that the current numbers for sustainable yield may be overestimated.

3. Fish

37. Informed observers began to be alarmed in the early 1980s, noting that total abundance for all fish stocks had dropped dramatically. The stock of Notothenia rossii was especially heavily overfished in 1970 and 1971 and has not recovered since. Additional concerns were raised for seals, whales, birds and other non-target species caught and killed incidentally during fishing or by lost and discarded fishing gear.

38. Several conservation measures, including a catch-reporting system, are now in effect to protect populations that have been depleted. These measures included a ban on fishing for the severely depleted population of Notothenia rossii, and a total closure of the fishery for Champscephalus gunnari through 1989. Further bans and catch limits were adopted by the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) in late 1989.

4. Seals

39. The absence of human predation has allowed seal numbers to regenerate. Estimates of fur seals on South Georgia, for instance, grew from 100 in the 1930s to 150,000 by 1957, and to an estimate of over 350,000 since 1976. The reduction of whale populations and resulting increase in krill may also have contributed to the recent growth in seal numbers.

40. The Convention on the Conservation of Antarctic Seals, concluded in 1972, imposed a total prohibition on the capture of Ross, fur and elephant seals; and set quotas for the crabeater, Weddell and leopard seals of 175,000, 5,000 and 12,000, respectively. It also designated three oceanic areas as reserves and imposed other conservation measures.

5. Oceanic birds

41. The population dynamics of these birds are the subject of ongoing research as there is a dearth of information in the scientific record. However, the following general comments can be made on the basis of available data:

(a) While downward trends in some seabird populations appear to be attributed to direct or indirect effects of human activities, no decrease can be linked at present with commercial harvesting of them in Antarctic waters;

(b) The increase in some populations may be due to increased availability of food at sea. However, the precise nature of this is uncertain and there is evidence that populations of king penguins have increased following previous overexploitation.

VI. SCIENTIFIC RESEARCH IN ANTARCTICA AND PROTECTION OF THE ANTARCTIC ENVIRONMENT

42. It has long been known that Antarctica offers unique opportunities for research in a variety of disciplines which contribute to understanding problems outside the Antarctic. In recent years, it has also come to be accepted that research in the Antarctic, including the Southern Ocean and the sub-Antarctic islands, is a crucial contribution to understanding global changes. Doubtless the results of this research has implications for the future of all human activities. Antarctic scientists have made a major contribution to the study of global issues. These include ozone depletion and the possible effects of ultraviolet rays on biota; the increase in greenhouse gases, and their connection to climate; the ice-sheet's effects on sealevel changes; the possible role of the Southern Ocean as regards the atmosphere and the CO² cycle; and the importance of the Southern Ocean to global atmospheric circulations.

43. In September 1986, the General Assembly of the International Council of Scientific Unions launched the International Geosphere-Biosphere Programme (IGBP): a Study of Global Change. Its main objective was to describe and understand the interactive physical, chemical and biological processes that regulate the total Earth system; the unique environment that it provides for life; the changes that are occurring in their system; and the manner in which they are positively or negatively influenced by human activities.

44. At times, existing international research programmes appear to address research problems in the Antarctica in a somewhat less than adequate manner. In order to fill some important gaps in this research, the Scientific Committee on Antarctic Research (SCAR) has identified four interdisciplinary research themes:

(a) Detection of changes of global importance, best observed in Antarctica, which are fundamental to establishing the nature of current trends of change and thereby providing a foundation for understanding the underlying processes;

(b) Study of processes linking the Antarctic sea-ice, ice-sheet and biological systems to the global ocean and atmosphere, which characterize Antarctica's relevance to global change and human activity;

(c) Use of paleoenvironmental information from Antarctic sources which provide a context for interpreting current changes on the 10 to 100 year time-scale of principal concern to the IGBP;

(d) Study of ecology in the changing Antarctic environment, to assess the impacts of climate on Antarctic biota and their possible feedback effects on climate.

VII. CONCLUDING REMARKS

45. The increase of scientific activities in Antarctica and some man-induced phenomena such as the so-called "ozone hole", have increased public awareness of the dangers which such human activities may pose to the Antarctic environment and to the global system. Moreover, speculation about possible exploitation of Antarctic mineral resources and its eventual detrimental environmental impact have become a source of major discussion and concern. Within the past five years, a number of positive initiatives have been taken in various forums to seek answers to questions related to protecting the Antarctic environment and its associated ecosystems. Discussions to this effect have, *inter alia*, been held within the framework of the Antarctic Treaty System and in other international forums.

Notes

1/ Report to the United Nations from the Scientific Committee on Antarctic Research on the State of Environment in Antarctica, p. 4.

2/ Ibid., p. 4.

3/ The Role of Antarctica in Global Change. Scientific Priorities for the International Geosphere-Biosphere Programme (IGBP). Prepared by SCAR for the IGBP, April 1989. ICSU Press/SCAR, p. 8.

4/ Ocean and Coastal Areas Programme Activity Centre. United Nations Environment Programme (UNEP). Report on the state of the environment in the Antarctic, December 1989, p. 15.

5/ Ibid., pp. 15-16.

Notes (continued)

6/ WMO contribution to the report of the Secretary-General of the United Nations on Antarctic environment, pp. 4-5.

7/ See Lee A. Kimball. Southern Exposure: Deciding Antarctica's Future. World Resources Institute, November 1990.

8/ WMO contribution to the report of the Secretary-General of the United Nations on Antarctic environment, pp. 4-5.

9/ J. O. Stromberg et al. State of the Marine Environment in Antarctica. UNEP Regional Seas Report and Studies No. 12a, UNEP, 1990.

10/ A Strategy for Antarctic Conservation. IUCN - The World Conservation Union, 1991, p. 21.

11/ Report to the United Nations from the Scientific Committee on Antarctic Research on the State of the Environment in Antarctica, p. 11.

12/ See Presentation by the President of the Scientific Committee on Antarctic Research (SCAR), Dr. R. M. Laws. SCAR report IV-6, January 1991, p. 10.

13/ Benninghoff, W. S. and Bonner, W. N., Man's Impact on the Antarctic Environment. SCAR, Cambridge, 1985.

14/ Oceans and Coastal Areas Programme Activity Centre. Op. cit., p. 18.

15/ Ibid., pp. 15 and 21.

16/ J. O. Stromberg et al., op. cit., p. 5.

17/ Ibid., p. 9.

18/ Ibid., p. 9.

19/ Ibid., p. 11.

20/ Ibid., p. 17.

21/ Ibid., p. 23.

22/ This part of the report reflects information including the report on the state of the environment in the Antarctic. Oceans and Coastal Areas Programme Activity Centre. United Nations Environment Programme (UNEP), December 1989. Data on whale population dynamics were also provided by the International Whaling Commission.

ANNEX

Replies from Governments

GERMANY

[Original: English]

[29 May 1991]

1. The Permanent Representative of Germany to the United Nations, acting on behalf of the States Parties to the Antarctic Treaty, presents his compliments to the Secretary-General of the United Nations and has the honour to refer to the Secretary-General's note of 27 February 1991 concerning General Assembly resolution 45/78 A of 12 December 1990 on the question of Antarctica.

2. The resolution refers to the significant impact that Antarctica exerts on the global environment and ecosystems. The Parties to the Antarctic Treaty are aware of the need for concerted international action to protect the Antarctic environment from external environmental disturbances which could accelerate serious global environmental change. Being the countries active in the region, they have developed measures, and will continue to develop measures, to protect the fragile Antarctic environment from the impact of the limited human activity within the region.

3. Given the indispensable contribution of Antarctic scientific research to the global effort to predict and understand climate change, the Parties to the Antarctic Treaty will also continue to make freely available the results of their Antarctic research bearing upon the global environment as well as all other subjects. Any State Member of the United Nations can participate in this work by acceding to the Antarctic Treaty.

MAURITIUS

[Original: English]

[25 July 1991]

1. The Government of Mauritius supports the proposal to set up a United Nations-sponsored station in Antarctica for the following reasons:

(a) The present Antarctic Treaty, as an instrument for the conservation of the world's last remaining great wilderness, is inadequate as judged by its position on mineral resource activities (Convention on the Regulation of Antarctic Mineral Resource Activities);

(b) Only nations that are currently undertaking significant research activities in the Antarctic region can become contracting parties. A United Nations research station would increase the possibilities for scientists to carry out relevant research;

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(c) The establishment of a United Nations research station would stop the proliferation of a large number of research stations, whose impact on the Antarctic environment is already considerable. Waste accumulation and environmental damage caused by pollution, and high concentration of buildings on King George Island is a classic example. Some stations have been constructed in breach of the Agreed Measures for the Conservation of Antarctic Fauna and Flora;

(d) Only the United Nations can enforce the Convention on the Conservation of Antarctic Marine Living Resources and enforce regulatory mechanisms to conserve krill of the Southern Ocean for the decimated whale population.

2. It would also be grateful if the report on the state of the environment in Antarctica were to highlight the following issues:

(a) Conservation of the unique wildlife in that region;

(b) Stressing the negative impacts of tourism and high concentration of research stations in that region and the logistic infrastructure needed to service them, e.g. airstrips, fuel stations, etc.;

(c) Some Antarctic research addresses issues fundamental to human understanding of the global environment. Ice cores hold a record of past climatic and atmospheric changes, and should be available to the scientific community of all Members of the United Nations.

THAILAND

[Original: English]

[5 June 1991]

1. The Government of Thailand is of the view that the ecological environment of Antarctica is fragile and could be easily contaminated by excessive exploitation.

2. The Government of Thailand supports any initiatives or studies aimed at the conservation and protection of Antarctica.

3. The Government of Thailand is also of the view that a comprehensive study of the establishment of a United Nations-sponsored station in Antarctica, to be prepared by the Secretary-General of the United Nations (General Assembly resolution 45/78 A, para. 5), should also take into account information and the views of various non-governmental organizations.
